REMARKS

It is first noted that the final Office Action of September 14, 2007 is 14 pages long, which exceeds the length of the present patent application which describes a screw for hard materials having a sawtooth configuration formed along the thread.

It is secondly noted that according to PAIRS the application has been re-assigned to Examiner Engle.

It is further noted that Applicant's request for an interview was denied and yet the Office Action asked many questions. It is believed that many, it not all, of these questions could have been answered during an Interview to advance the processing of the application.

REPLY ON THE DRAWINGS

It is clear from the discussion that the Examiner (possibly the former Examiner) was having difficulty with the mechanical drawings in three dimensions and with sectional drawings.

Applicant explained in the last reply that the sawteeth would be too small to be illustrated in Fig. 1, and this is a normal practice in drawings, and yet the Office Action in paragraph 4 asks why the sawteeth can't be seen in Fig. 1.

The Examiner's comments on the drawings were as follows:

"Examiner cannot determine how Figs. 3, 4 and 5 correspond."

The sequence in which the drawings should be consulted is Fig. 1, then Fig. 3, then Fig. 5, then Fig. 4.

Fig. 3 is an enlarged sectional view, which is a slice through Fig. 1, that is then flipped 90 degrees or "projected"

as it is said in the art of mechanical drawings, to show a diagram from a viewpoint looking approximately along the longitudinal axis of the screw looking at a "slice," but looking at the slice from a 90-degree angle rather than the 120 degree angle of the longitudinal axis to the thread. Because slice III-III in Fig. 1 is at an angle it is called a "diagonal section" rather than an "orthogonal" section. Fig. 5 is then a portion of Fig. 3, but only six teeth are illustrated and not all nine teeth from Fig. 3. Fig. 4 is a sectional view or crosswise slice through Fig. 5 showing the shape of one of the teeth as it rises from the base of the shaft.

Regarding the Examiner's comments on Fig. 2, this a top view of the entire screw, whereas Fig. 5 is a top view of just the thread of the screw based on Fig. 3.

Applicant's minor amendments to the specification and drawings were an attempt to explain to the Examiner in writing more about the drawings and disclosure and instead of an interview the Applicant received a new matter rejection and a final rejection. Applicant requests an Interview to discuss any further questions the Examiner may have on these subjects.

REPLY ON THE NEW MATTER REJECTIONS AND
THE REJECTION ON 35 U.S.C. 112, FIRST PARAGRAPH

Certain information is inherent in a drawing to one of ordinary skill in mathematics and the mechanical arts. Thus, there are three axes defined by length, width and height in a rectangular system of reference for any illustrated object. In this application, the centerline of a thread is inherent and well known in the classic screw as running down the thread along

the conventional sharp edge of the thread. It is well known in the art. In this application, the edge of the thread has been flattened into surface 12, and divided lengthwise into sections or teeth, and the teeth are offset laterally (sideways) in opposite directions from the centerline (CL), so that left edge of one aligns with the right edge of the next tooth as seen in Fig. 5.

The centerline CL of the "thread" should not be confused with the axis through the length of cylindrical base of the screw. There is also a well-known radial axis shown in Fig. 3 and in Fig. 4.

Also, the indicator V was provided as an aid to the illustration. It is correct. The addition of drawing aids or reference lines, if correct, is not the addition of new matter, any more than the addition of new words to describe what is already shown in the drawings and understood by one of ordinary skill in the art. Therefore, the rejections on new matter are seen to be based on literalism and are not seen to be valid and it is respectfully requested that they be withdrawn.

ANSWERS TO THE QUESTIONS ON THE DISCLOSURE

A1: The rectangles are numbered 12 in the drawings. The "next rectangle" is the next rectangle when proceeding along the length of the structure shown in Fig. 5.

A2: What this passage refers to are the radial lines seen in Fig. 3. In fact all radial lines do pass through the longitudinal axis but only at a narrow intersection.

A3: This is describing an inverted U-shaped surface with top portion 6 and side portions 11.

A4: See the answer A3 above. Edge 6 is a top leading edge and edge 11 is a side leading edge.

REPLY ON REJECTIONS UNDER 35 U.S.C. 112, SECOND PARAGRAPH

Claim 1 has been amended in the preamble to replace the "such as" language.

Claim 6 has been amended to relate the subject matter to claim 1.

Claims 8 and 11 have been amended to provide antecedent basis or to properly introduce terms of the claims.

Claim 13 has been provided with antecedent basis by amending the claim dependency.

Claim 14 has been amended to clarify what is being claimed; a portion of thread is designed penetrate the wall of any hole as it is being turned into a hole.

REPLY ON THE PRIOR ART REJECTIONS

In the Office Action, claims 1-9 and 13-14 were rejected under 35 U.S.C. 102(b) as anticipated by Auger, EP 0501860. Certain claims were also rejected over Auger in view of additional references.

Auger, EP 0501860 shows cutting teeth that are positioned in pairs at 180-degree intervals around the shaft. The cutting teeth do not form "a series of cutting teeth within one half turn of the screw thread," as now claimed in amended claim 1, they instead provide the well know auger thread seen in drills for drilling earth and ice.

In the Office action paragraph 15, it was said that claim 1 claimed "at least one half turn of the thread," and not "a

series of cutting teeth within one half turn of the (screw) thread."

The Examiner has misunderstood the language of claim 1.

Applicant's copy of the document filed July 10, 2007, reads 1. A screw… having a thread wherein "a series of cutting teeth are formed along at least one half turn of the thread."

Applicant does not understand the Examiner's paragraph 16 because the thread is part of the screw in the preamble, therefore, the term "screw" is implied by the thread being a part of the screw as claimed. The point here is that the "series" of cutting teeth are all within that half turn of the thread of the screw, whereas Auger shows a thread with one half turn but only one pair of opposing teeth per half turn and not a series of teeth along the half turn of the thread as claimed in claim 1. None of the drawings on page 11 of the Office Action show anything else but the classic auger thread which is quite different from a sawtooth thread as claimed in the claims herein.

Also in Auger, each pair of teeth is identical to the preceding pair due to the twist of the screw thread, so that the pattern in each half turn is identical to the next half turn. The Auger pattern is a repeating pattern per half turn, rather than alternating teeth within a half turn.

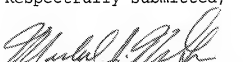
The other prior art rejections are all based on Auger as the base reference. Since the understanding of Auger in view of claim 1 is incorrect, reconsideration of all of the rejections as being based on a faulty premise is respectfully requested.

CONCLUSION

If any fee needs to be charged for this submission in addition to the fees submitted, authorization is hereby provided to charge Boyle Fredrickson Deposit Account 50-1170.

In view of the interview and remarks, reconsideration of the application is respectfully requested. Claims 1-14 are still pending and a Notice of Allowance for these claims is respectfully requested.

Respectfully submitted,

By: 

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